Bit32

In oder to use bit variables as checkboxes in the LSE, an object of this class must be instanced. These variables can be placed in the LSE as a checkbox.

In order to set or delete a single bit in a 4 byte data block, the following format has to be complied on writing to the server **Data**:

The highest bit (bit 31) has the information, whether the desired bit is set (1) or deleted (0). The bits 0 until 30 define the desired bit. This is indicated with a 1. All other bits remain 0.

Example: If the value 16#80000001 is written to the server, only bit 0 is set to 1, all other bits are not changed.

In order to be able to use all 32 bits, there a two special cases. If the value 16#80000000 is written to the server, this only can mean, that bit 31 (msb) is set to 1. If 16#00000000 is written, bit 31 (msb) is deleted.

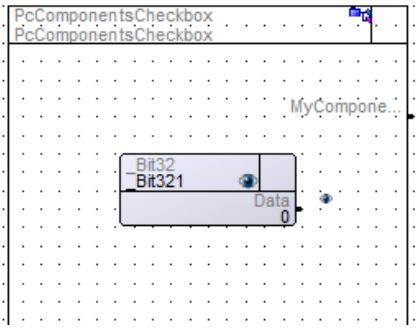
Interfaces

Servers

Data	In order to “translate” the input from the visualization to single bits, in the Write method of the placed server the Write method of the server Data has to be called. (see code example; for this the class Bit32 is embedded in the class, whose server has to be placed).

Example

Object Network of the Complex Class PcComponentsCheckbox



Write Method of the Server MyComponents

```
FUNCTION VIRTUAL GLOBAL PcComponentsCheckbox::MyComponents::Write
  VAR_INPUT
    input (EAX)    : PcComponentsRadio::_PC_COMPONENTS;
  END_VAR
  VAR_OUTPUT
    result (EAX)   : PcComponentsRadio::_PC_COMPONENTS;
  END_VAR

  MyComponents:= _Bit321.Data.Write(input:=input);
  result := MyComponents;

END_FUNCTION
```

The Write method is called from the visualization with a value, as described above. The execution to the single bit is then realized with the method _Bit32::Data::Write.

A BDINT type has to be assigned to the server, so that the value can be transferred correctly from the visualization. Then in the LASAL SCREEN Editor single bits can be placed as checkboxes.